

Rejection Under 35 U.S.C. § 112

In Paragraph 1-5 of the Official Action, the Examiner rejected Claims 4-6 under 35 U.S.C. § 112, first paragraph and second paragraph. Said claims have been amended to eliminate any ambiguity and the Examiner has been directed to the portions of the specification that detail explanation and application of the referenced terms. Accordingly, it is submitted that said claims do not violate 35 U.S.C. § 112 and are in fact enabling and definite.

Rejection Under 35 U.S.C. § 102

In Paragraphs 6 and 7 of the Official Action, the Examiner rejected Claims 1, 3 and 7 under 35 U.S.C. § 102(b) as being anticipated by Vaselloff et al. U.S. Patent No. 5,186,097. The Examiner's rejection of February 9, 2001 tracks that of the earlier Official Action. At page 5 of the Official Action, the Examiner states that Vaselloff teaches "a control means which periodically measures and adjusts the temperature of the cooking oil (Abstract). Regardless, the methodology cited by the applicant in the arguments is not present in the claims." The Examiner does not specify whether he is referring to the claims of Vaselloff or the present application. For purposes of the following response, applicant presumes the Examiner is referring to the claims of the present application.

It is fundamental that the claims of the present application are to be interpreted in light of the specification, which includes the claims. Claim 1, for example, sets forth the following element:

A computerized controller for directing the operation of said cooking appliance and for receiving, storing and retrieving data said controller including means for compensating for the introduction of a new cooking medium by adjusting the sense

temperature of said new cooking medium by a predetermined the programmable amount over a select number of cooking cycles.

Such language is to be interpreted, of course, in accordance with the applicant's specification.

Vaselloff recognizes that the rate of cooking oil temperature changes from onset of the cooking process, and uses that rate of change to assign a corresponding, predetermined energy "curve" for the control to follow. Most importantly, as stated at col. 5, line 22, "the actual cooking time for the particular product does not change." The present invention also uses oil temperature change, but the "means for compensating for the introduction of a new cooking medium by adjusting the sense temperature of said new cooking medium by a predetermined and programmable amount over a select number of cooking cycles," as defined by the present specification, is quite different. The present invention uses measured and programmable temperature changes to identify an oil stir and to remove the temperature offset resulting from oil stratification. These concepts are, perhaps, most concisely set out in Claim 2. Similarly, the present invention provides a programmable and measurable temperature change to determine if food product has been introduced into the cooking oil to mark the actual start of the cooking process rather than relying simply on an operator's manual start. This concept is perhaps most concisely set forth in Claim 3. Further, the present invention uses a diagnostic for heating capacity between two oil temperatures and captures the maximum heat rise per time element.

All of the foregoing elements contribute to a compensation that stretches or comprises the cook time for a given product. Please see fig. 6 of the present application, which is a block diagram detailing the non-linear compensation of the present invention. The final entry states: "Stretch or compress time according to multiplier." Thus, in direct contradiction to Vaselloff, the means for compensating for the introduction of a new cooking medium, which

includes application of the non-linear compensation, stretches or compresses the cook time according to operation of the non-linear compensation formula. On this basis, applicant respectfully submits that all of the 102 rejections based on Vaseloff are improper.

Claim 3, as set forth in the Response of December 15, 2000, further explained that means for compensation determines the start time of the cook cycle based on the introduction of product rather than the pushing of a start button by an operator. Claim 7 includes means for conducting performance checks through manipulation and display of information received and stored by the controller. Vaseloff, even to the extent it arguably teaches a control means which periodically measures and adjusts the temperature of cooking oil, fails to address any of the above concepts. While it is true that limitations from the specification are not to be read into the claims, the Federal Circuit's recent decision in Festo (see Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd., 234 F.2d 558 (Fed. Cir. 2000)) vividly demonstrates that the claims must be interpreted in light of the specification.

The Examiner has rejected Claim 2 under 35 U.S.C. § 102(e) as being anticipated by Harter et al., U.S. Patent No. 5,847,365. Harter is, once again, cited as teaching a cooking appliance comprising a fryer, a temperature sensor, and a control system which compensates for oil stratification. At page 5 of the Official Action, the applicant notes that the methodology of Harter is merely a preferred method of use of the claimed apparatus and cites the applicant to column 2, lines 42-45 of Harter. These lines teach a controller with means for compensating for oil stratification.

Applicant explained the teaching of Harter in its previous response. Briefly described, Harter addresses oil stratification by storing an array of cooking times as a function of

fryer idle time. Through experimentation, a user determines necessary cook time after each idle cycle, and inputs the necessary cook time into the Harter device. The present controller tracks idle time and, when a cook cycle is initiated, an empirically derived appropriate cooked time is identified and applied. Once again, the issue in examination of this claim involves the application of 35 U.S.C. § 112, paragraph 6, in that Claim 2 specifically recites "means for compensating for oil stratification." As explained at pages 24-28, the present invention specifically describes such means in terms of a function that offsets the set temperature of the cooking oil at a defined rate so as to maintain a near-consistent average oil temperature throughout the fryer pot. This function is programmable, but as indicated on page 25, includes adding a pro rated quantity of heat to raise the sensed oil temperature above the desired cook temperature over a specified number of minutes. See Specification, page 25, lines 10-20. The present invention even provides a preferred ramp determination, namely – raising the oil temperature 10° F. per 30 minutes of idle time.

While the applicant admittedly referred to Vaseloff and Harter in terms of "methodology," it is recognized that the present invention is claimed in terms of means plus function language. Thus, it must be understood that the "function" claimed by the present invention, as defined by the specification, differs significantly from that of both Vaseloff and Harter. Harter, for example, makes no mention of a compensation method for oil temperature stratification that comprises adding a pro rated quantity of heat to raise sensed fried pot oil temperature over the desired cook temperature for a specified number of minutes in order to compensate or cure oil temperature stratification. Accordingly, applicant respectfully disagrees that the present claims fail to distinguish the present invention over Vaseloff and Harter. Rather,

the means plus function language employed by the present claims, when interpreted in light of the specification, claim structure that differs in function or application from that of the cited references.

The Examiner has rejected Claims 4-6 under 35 U.S.C. § 103(a) as being unpatentable over Mahe Jr., Patent No. 6,018,150. Once again, the Examiner has taken the position that Mahe Jr. teaches an appliance and method including means to adjust the cook cycle according to a non-linear compensation and loading a food item into a heating medium followed by cooking. Applicant respectfully submits that the function of Mahe Jr., as claimed and described, differs significantly from the function of the present invention, as claimed and described. The present invention provides a specific non-linear formula (see Claims 4-6) that stretches and compresses cook time increments based on an empirically derived determination of how a cooking medium at various temperatures performs in cooking the product. As indicated in column 13, lines 33-56 of Mahe Jr., the described Mahe Jr. compensation for "move to idle pulse" is determined by an equation where MTIP is the duration in seconds of the move to idle pulse, IOP is the duration in seconds of the idle on pulse, T is temperature (set point or when the MTIP is initiated), and K is the change in temperature of the cooking medium resulting from one idle on pulse. Mahe Jr. thus attempts to control fryer operation so that it operates in and around a particular range as defined by "set point temperature." Mahe does not address any correlation to product cooking variation or, more importantly, cooking time expansion and compression based upon product.

In response, the applicant directs the Examiner to pages 29 and 30 of the present specification. As explained therein, the present non-linear compensation is concerned with the

stretching or compressing of cook time increments based upon how a particular cooking medium performs dynamically at various temperatures and impacts the product to be cooked. The present algorithm is then utilized to expand or compress the cook time in an amount necessary to achieve consistent cooking of a specific product over a period of boil usage. In other words, the function of the present compensation, as claimed and described, is to yield an optimally consistent product, regardless of the actual median temperature (relative to a set point temperature otherwise) provided by the oil in the cooking device.

The applicant further directs the Examiner's attention to page 31 of the present specification. As explained, the time expansion calculation (or the time compression calculation) of the present invention utilizes an exponential growth factor C which is an empirically defined constant for the particular product to be cooked. The specification describes the process by which to determine that constant. Each of Claims 4-6 call for an element C which is an exponential growth factor. Maher Jr. in no place addresses the use or need for an exponential growth factor. Accordingly, applicant must respectfully disagree with the Examiner's statements on page 5 of the Official Action. The cited reference does fail to show such features of the claimed invention and such features are recited in the claims at issue.

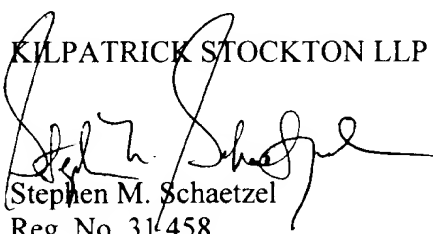
In view of the foregoing, applicant respectfully submits that the pending claims are patentable over the cited references. The preceding is based only on the arguments presented in the Official Action and therefore do not address patentable aspects of the invention that were not addressed by the Examiner in the Official action. Accordingly, the preceding arguments in favor of patentability are advanced without prejudice to other bases of patentability.

Conclusion

The foregoing is submitted as a full and complete response to the Official Action mailed February 9, 2001. Applicant respectfully submits that Claims 1-7 are allowable and that the present application is in condition for allowance. Applicant encourages Examiner Becker call or otherwise contact the undersigned to address any outstanding issues.

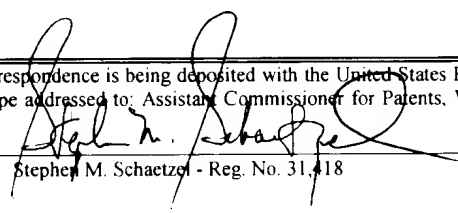
Respectfully submitted,

KILPATRICK STOCKTON LLP


Stephen M. Schaetzel
Reg. No. 31,458

1100 Peachtree Street
Suite 2800
Atlanta, GA 30309
(404) 815-6500 (telephone)
(404) 541-3379 (facsimile)
sschaetzel@kilpatrickstockton.com

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, DC 20231, on August 9, 2002.


Stephen M. Schaetzel - Reg. No. 31,418

ATLLIB02 84188 1